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ABSTRACT

Previous research has found that 80 percent of all adults incarcerated for felonies either had regularly used illegal drugs or abused alcohol, been convicted of a drug or alcohol violation, were under the influence of drugs and/or alcohol at the time of their crime, committed a crime to support their habit, or exhibited some combination of these characteristics. The key to reducing crime, the prison population and the enormous associated costs is to reduce the substance abuse among offenders. The Drug Treatment Alternative-to-Prison (DTAP) Program in Brooklyn, New York gives every indication of doing just this with some of the most difficult offenders who have not been convicted of violent crimes. The program is open to addicts who have repeatedly sold drugs, have not been convicted of a violent crime, are willing to engage in treatment and communal living, do not have a history of violence or severe mental disorder, and are facing a mandatory prison sentence. CASA's five-year evaluation of the program reveals the following: DTAP participants have rearrest rates that are 26 percent lower and reconviction rates that are 36 percent lower two years after leaving the program than those of the matched comparison group; participants are 67 percent less likely to return to prison; DTAP graduates had rearrest rates that were 33 percent lower, re conviction rates that were 45 percent lower, and were 87 percent less likely to return to prison; and graduates are three and one-half times likelier to be employed than they were before arrest. DTAP is proposed as a promising example of what law enforcement can do to reduce the number of addicted drug offenders in America's prisons. (Contains 56 references and 3 tables.) (GCP)

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Crossing the Bridge:
An Evaluation of the Drug Treatment Alternative-to-Prison (DTAP) Program

A CASA White Paper

March 2003

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Accompanying Statement by Joseph A. Califano, Jr. Chairman and President

In CASA's 1998 report, *Behind Bars: Substance Abuse and America's Prison Population*, CASA found that 80 percent of all adults incarcerated for felonies either had regularly used illegal drugs or abused alcohol, been convicted of a drug or alcohol violation, were under the influence of drugs and/or alcohol at the time of their crime, committed a crime to support their habit, or exhibited some combination of these characteristics. Of the nearly $30 billion states spent on adult corrections (incarceration, probation, and parole), $24.1 billion of it was on substance-involved offenders.

The key to reducing crime, the prison population and the enormous associated costs is to reduce the substance abuse among offenders. The Drug Treatment Alternative-to-Prison (DTAP) Program in Brooklyn, New York gives every indication of doing just this with some of the most difficult offenders who have not been convicted of violent crimes--repeat felony offenders who are addicted to substances such as heroin, crack and powder cocaine, and who have already spent an average of four years behind bars.

Developed by Brooklyn District Attorney Charles J. Hynes in 1990 in response to the number of drug-addicted offenders in Kings County, the DTAP program provides 15- to 24-months of drug treatment in a residential therapeutic community with clearly established rules of conduct, timetables and goals. The program is open to addicts who have repeatedly sold drugs, have not been convicted of a violent crime, are willing to engage in treatment and communal living, do not have a history of violence or severe mental disorder, and are facing a mandatory prison sentence.

In its original incarnation, participants charged with drug crimes were given the opportunity to enter treatment in lieu of continued prosecution by indictment and trial. In 1998, the program was changed from a deferred prosecution to a deferred sentencing model. Under the latter, individuals plead guilty to a felony and then enter treatment as an alternative to being sentenced to prison, thus establishing the immediacy and certainty of punishment for those who drop out.

CASA's five-year evaluation reveals the following:

- DTAP participants have rearrest rates that are 26 percent lower (43 percent vs. 58 percent) and reconviction rates that are 36 percent lower (30 percent vs. 47 percent) two years after leaving the program than those of the matched comparison group two years after leaving prison.

- DTAP participants are 67 percent less likely to return to prison (five percent vs. 15 percent), two years after leaving the program than are those of the matched comparison group two years after leaving prison.

- More than half of DTAP participants (52.6 percent) graduate from the program.

- DTAP graduates had rearrest rates that were 33 percent lower (39 percent vs. 58 percent); reconviction rates that were 45 percent lower (26 percent vs. 47 percent); and were 87 percent less likely to return to prison (2 percent vs. 15 percent).

- DTAP graduates are three and one-half times likelier to be employed than they were before arrest. Although only 26 percent were working either part-time or full-time the year before arrest, 92 percent were working after DTAP.

- DTAP participants remain in treatment six times longer (a median of 17.8 months vs. 3 months) than those in the most recent national study of the long-term residential drug treatment population.

- Since the 1998 program changes, DTAP has achieved an impressive one-year program retention rate of 81 percent and a two-year retention rate of 62 percent, compared to pre-1998 retention rates of 64 percent and 49 percent respectively. High retention rates are important since the longer an individual remains in treatment, the greater the likelihood of achieving sobriety and the lifestyle changes essential for future success.

- These results are achieved at about half the average cost of incarceration. The average cost of placing a participant in DTAP, including the costs of residential drug treatment, vocational training and support services, was $32,975 compared to an average cost of $64,338 if the individual had been placed in prison.

DTAP is a promising example of what law enforcement can do to reduce the number of addicted drug offenders in America's prisons. It demonstrates the importance of being tough on crime in the right way--using the stick of enforcement to hold people accountable for their crimes and to get them to enter and stay in treatment. The immediacy and certainty of punishment for noncompliance appear to be key factors in achieving success. Most significantly, DTAP demonstrates that we should not write off repeat, drug-involved offenders.

The Brooklyn Bridge is a spectacular symbol of accomplishment--sound, functional, beautiful and enduring. For individuals facing the certainty of incarceration because of drug dealing and use, the Brooklyn DTAP program provides a sound and functional bridge to a long life of independence, self-sufficiency and achievement.

These findings are part of a long-term analysis of the DTAP program by CASA funded by a grant from the National Institute on Drug Abuse (NIDA). NIDA has provided additional funds to extend the tracking period of DTAP participants up to three years and to conduct further analyses.

We wish to thank our research partners--the University of Maryland, College Park; the Research Triangle Institute in Research Triangle Park, North Carolina; and the Vera Institute of Justice in New York City. We appreciate the assistance with data collection of the Kings County District Attorney's Office, especially Anne Swern, Counsel to the District Attorney and Li Feng, Research Director.

This report is part of CASA's policy research agenda and was prepared under the direction of Susan E. Foster, M.S.W., CASA's Vice President and Director of Policy Research and Analysis. The Principal Investigator for the project was Steven Belenko, Ph.D., former CASA Fellow. Other CASA staff who worked on the evaluation include: Hung-En Sung, Ph.D., Lisa O'Connor, Ph.D. and Jeffrey Lin. Tisha Hooks helped edit this report. Jane Carlson and Jennie Hauser handled administrative responsibilities.

We also greatly appreciate the help of the talented professional reviewers from outside CASA: Pauline Brennan, Ph.D., Assistant Professor of Criminal Justice, University of North Carolina at Charlotte; Gregory Falkin, Ph.D., Senior Principal Investigator, National Development and Research Institutes, Inc. in New York City; and Susan Turner, Ph.D., Associate Director, RAND Criminal Justice in Santa Monica, California.

While many individuals and institutions contributed to this effort, the findings and opinions expressed herein are the sole responsibility of CASA.

Crossing the Bridge: An Evaluation of the Drug Treatment Alternative-to-Prison (DTAP) Program

In its 1998 report, *Behind Bars: Substance Abuse and America's Prison Population*, CASA found that 80 percent of all adults incarcerated for felonies either had regularly used illegal drugs or abused alcohol, been convicted of a drug law or alcohol violation, were under the influence of drugs and/or alcohol at the time of their crime, committed a crime to support their habit or exhibited some combination of these characteristics.[1] That year, of the nearly $30 billion states spent on adult corrections (incarceration, probation and parole), they spent $24.1 billion of it on substance-involved offenders.[2] In 2001,* those who violated drug laws accounted for 20 percent of the 1.2 million prisoners in America's state prisons.[3] New York State alone reported 40, 249 felony drug arrests† that year and 17,364 felony drug prosecutions.[4]

The Drug Treatment Alternative-to-Prison (DTAP) Program in Brooklyn, New York is designed to reduce the costly consequences of substance abuse-related crime by targeting treatment to drug-addicted, nonviolent repeat felony offenders who face mandatory punishment under New York State's second felony offender law. It is one of the first residential treatment programs directed at drug sellers‡ who also abuse heroin, crack and powder cocaine among other substances. Since DTAP was established in 1990, more than 1,700 offenders have participated in the program. On average, participants§ had five previous drug arrests and had spent four years behind bars.

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* The most recent year for which data are available.
† Drug felonies are offenses defined in the New York State Penal Law Articles 220 (Controlled Substances) and 221 (Marijuana).
‡ The DTAP program is also directed at other drug-addicted felony offenders who have not previously been convicted of a violent crime.
§ From a sample of DTAP participants including both graduates and dropouts.

The DTAP Model

Although drug abuse and addiction pervade America's prisons, effective treatment programs that reduce drug use and aid in reducing recidivism do not exist in sufficient numbers to address the problem. Few drug-abusing sellers are permitted to enter treatment programs that divert them from incarceration. DTAP in Brooklyn, New York is an exception. In lieu of prison, repeat nonviolent felons are sent to a residential treatment facility. Those who successfully complete the program engage in 15- to 24-months of intensive drug treatment and vocational training.

Prior to 1998, DTAP targeted only defendants arrested for felony undercover "buy-and-bust"* drug sale offenses who had been convicted previously of a nonviolent felony. The selection of such cases for the program ensured that only defendants who were facing the real threat of prison time and almost certain conviction should they fail treatment were allowed to participate.

Since the DTAP program at that time deferred prosecution, a DTAP-eligible defendant was given the opportunity to enter treatment in lieu of prosecution by indictment, trial and sentence. If a defendant failed the program, the court procedures would begin anew--prosecution and, if found guilty, conviction and prison time.

Several changes were made by the King's County District Attorney's Office in January 1998 to enhance retention and expand the target population:

- DTAP shifted from a deferred prosecution program to a deferred sentencing program. Instead of holding the charges in abeyance, the prosecutor's office now requires defendants entering treatment to plead guilty to a felony, thereby ensuring a mandatory prison sentence if the defendant absconds from the program. Sentencing is deferred pending completion of the DTAP program, at which point the guilty plea is withdrawn and the charges dismissed. Those who fail the DTAP program are brought back to court by the District Attorney's special

Program Background

Like the rest of the Nation, New York State's prison population more than doubled in the 1980s, driven largely by the increase in felony drug convictions. In 1982, drug felons constituted 11 percent of the 10,403 new prison admissions; by 1990 nearly half (46 percent) of the 23,098 new state prison admissions were drug felons.[5]

Substance use is tightly associated with recidivism.[6] The more prior convictions an individual has, the more likely that individual is to be a drug abuser. In state prisons, 41 percent of first offenders have used drugs regularly, compared to 63 percent of inmates with two prior convictions and 81 percent of those with five or more convictions.[7] Yet, before the crack cocaine epidemic there were few systematic efforts to divert or otherwise link drug-involved offenders to treatment programs.[8]

The number of adult felony drug arrests in Brooklyn escalated 325 percent, from 15,173 for the 1981-1985 period to 49,344 for the 1986-1990 period.[9] In 1989, when District Attorney Charles J. Hynes was elected as the District Attorney of Kings County (Brooklyn), 8,182 indictments were filed against drug felons in Brooklyn.[10] Acknowledging the need for new ways to solve these problems, Hynes developed the Drug Treatment Alternative-to-Prison (DTAP) program as a way to divert into long-term residential treatment nonviolent, repeat drug users and sellers who sell to maintain their habits.

* "Buy-and-bust" cases are undercover operations in which non-uniformed law enforcement officers pose as either drug users or sellers to attract and arrest drug users or sellers. The officer who participates in the sale serves as the key witness for the prosecution. This method is widely used in New York City because it provides very strong evidence (marked dollar bills and drugs) and reliable witnesses (the undercover officers). In the DTAP context, the fact that the evidence against a defendant would remain strong and available, despite the passage of time, ensured that the defendant could still be successfully prosecuted if he or she failed treatment.

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warrant enforcement team* and sentenced to prison on the outstanding charges. DTAP candidates are typically facing a mandatory prison sentence of four and one-half to nine years under New York State's second felony offender law.† †† The certainty and immediacy of punishment was expected to deter program participants from dropping out of treatment prematurely.

- Under appropriate conditions which the District Attorney determines on a case-by-case basis (e.g., voluntary return if the offender has absconded, family upheaval, etc.), program dropouts can be considered for readmission to DTAP at new treatment centers.

- The pool of program candidates was expanded by offering treatment opportunities to "observation sale" cases (where the arresting officer observes the sale, but does not participate in it as an officer would in a "buy-and-bust" case) and other nonviolent felonies in which the offender is substance involved.‡

- Brooklyn's Treatment Alternatives to Street Crime (TASC) program was enlisted to perform treatment assessment, case management and monitoring of treatment progress.

In the current DTAP program, candidates are chosen by the District Attorney's Office after intensive review. TASC then screens candidates for their clinical suitability§ for treatment at a select group of private, residential drug treatment programs. These drug treatment programs are organized around the therapeutic community (TC) model. They provide a highly structured, hierarchical environment with clearly established rules, timetables and goals enforced not only by the staff, but by the participants themselves. Only candidates who show a willingness to engage in treatment and communal living, and who do not have a history of violence or a severe mental disorder,** are considered for the DTAP program.

DTAP participants receive the same course of treatment as regular TC clients. The TCs have the power to expel program participants for noncompliance (i.e., drug use relapse, physical fights, sexual-acting out,†† etc.). Except for those with special needs,‡‡ new participants are matched to treatment facilities on the basis of clinical suitability and bed availability.

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* No offender is admitted into the program until the District Attorney's warrant enforcement team has determined that the individual has contacts in the community, and who and where those contacts are. In the event of an unauthorized departure from the program, a participant then can be tracked and brought back to court for sentencing.

† New York State's second felony offender law mandates a prison term for anyone convicted of a second felony offense, therefore a DTAP participant (who is by definition a repeat felony offender) who fails to complete the program must be sentenced to state prison. While a defendant's incentive to plead guilty is avoiding prison by entering the DTAP program, a defendant's incentive to successfully complete the DTAP program is knowing the alternative is a mandatory prison sentence.

‡ These may be any nonviolent felony, although most DTAP candidates have previous drug offenses or drug-supporting property offenses (e.g., theft or burglary).

§ Clinical suitability consists of an interview, psychosocial assessment and matching the offender to an appropriate facility. For example, attempts are made to match Spanish speakers with no proficiency in English to a facility that meets that need.

** Defined as having recently been hospitalized for mental health problems, currently seeing a physician for a mental health problem or currently taking medication for a mental health problem. The Kings County District Attorney's Office has developed the Treatment Alternatives for Dually Diagnosed Defendants (TADD) to address the needs of this population.

†† Any sexual contact between treatment program residents.

‡‡ Defined as Spanish speakers, young adults under 21, single women with children and individuals with full-blown AIDS.

The Evaluation

For five years, The National Center on Addiction and Substance Abuse (CASA) at Columbia University has been engaged in extensive research and analyses of the DTAP program. CASA has been assisted in this study by its research partners: the University of Maryland, College Park; the Research Triangle Institute, Research Triangle Park, North Carolina; and the Vera Institute of Justice in New York City. The Kings County District Attorney's Office has assisted with data collection.

Made possible by the support of the National Institute on Drug Abuse (NIDA), the project is designed to evaluate how socially and economically effective a residential drug treatment program for repeat felony offenders can be (as measured by possible reduced recidivism rates, drug use levels, increases in legal employment rates, etc.) when compared to the alternative of incarceration. The evaluation includes:

- A sample of 280 DTAP participants,* compared to a matched sample† of 130 individuals who went through the regular criminal justice process in New York City. This sample was used to assess rearrest, reconviction and reimprisonment rates, the median stay in treatment and program costs.‡

- A sample of 281 DTAP program graduates available for employment (individuals not in school full-time, not disabled and not homemakers). This sample was used to assess employment rates before arrest compared with those after DTAP program graduation.

- Data from more than 1,400 current and former DTAP participants were used to determine program retention rates before and after the 1998 program design changes and the program graduation rate.

DTAP Participant Characteristics

DTAP participants, who are usually older and more deeply involved in the criminal justice system than first time offenders, in many ways typify the general adult prison population.

Drug Use and Treatment History

Heroin was the most commonly used drug in the 30 days prior to arrest (57 percent), half (50 percent) had used marijuana, and a significant number of DTAP participants reported recent use of crack cocaine (40 percent) or powder cocaine (28 percent). In addition, 67 percent of DTAP participants reported use of more than one drug (including marijuana) in the past 30 days. Most participants had previously received some form of drug treatment (71 percent), but relatively few had been in residential drug treatment (13 percent).

---

* Consisting of 150 who entered DTAP in 1995-1996 and 130 who had either dropped out or graduated from the DTAP program prior to research initiation. Because of data limitations, only the sample of 150 was used to identify the characteristics of program participants. Male participants (n=247) were used to identify HIV prevalence.

† The comparison group for the impact evaluation consists of 130 drug offenders convicted of a second felony drug offense from the other boroughs of New York City (excluding Staten Island, the smallest borough) who were sentenced between June 1995 and December 1996. They were randomly selected from among offenders sentenced to prison terms equal to those the DTAP defendants would have received had they not been diverted to treatment. Comparison subjects were matched to the experimental group with respect to sex, age, race, penal law conviction charge, drug abuse and criminal history, and motivation to seek treatment, through a combination of computerized selection and brief screening interviews. Appendix A summarizes the methodology used for the core studies.

‡ The 150 participants who entered DTAP in 1995-1996 and 130 comparison subjects were used to determine the mean length of stay for the cost analysis.

Criminal History

On average, DTAP participants had five drug arrests and had been incarcerated as adults for a total of 49 months. DTAP participants also had an average of one prior probation or parole violation. Twenty-seven percent had been arrested as juveniles and 13 percent had spent time in juvenile detention. The last incarceration was most often for a drug charge (70 percent).

Mental Health

Research has indicated that more than half of the people with substance use disorders also experience mental health problems. Psychiatric comorbidity rates range from 21 percent to 65 percent with depression being the most common psychiatric condition for people with substance dependence.[12] Dually-diagnosed substance abusers have a poorer prognosis for successful treatment.[13]

Although individuals with severe mental disorders are excluded from the program, some participants reported significant psychological problems. In preliminary analyses, CASA found that only 18 percent of the felony drug offenders participating in the study reported receiving past psychological treatment.[14] Among these, 29 percent reported no current need for psychological treatment, although 60 percent reported experiencing psychological symptoms, emotional problems, and/or were troubled by these symptoms/problems in the past 30 days. Almost one-third (32 percent) of those without prior psychological treatment reported needing current psychological care. This group had a high prevalence of self-reported symptoms of psychological problems, especially depression.[15]

A separate analysis that compared DTAP participants in need of mental health treatment* to those who reported no need for care revealed that participants in need of treatment were more likely to have experienced family problems, had more frequent emergency room visits in the previous 90 days and were less likely to have ever had detoxification treatment than the "no need" group. The "need treatment" group also had a higher frequency of stealing with force or a weapon in the previous 90 days,† had a higher number of lifetime convictions for disorderly conduct, vagrancy or public intoxication and had higher anxiety scores than participants in the "no need" group.

HIV Risk Behavior

Among DTAP male participants, the conservative estimate of HIV infection prevalence is 13 percent.[16] The prevalence rate of all persons living with HIV/AIDS in North America is 0.6 percent.[17]

Sociodemographic Characteristics

Nearly all DTAP participants are male (89 percent) and most are Latino (62 percent) or African-American (33 percent). Their mean age is 33. Only 27 percent had a high school diploma or GED at the time of admission. One-quarter were married or living as married. Three-quarters (76 percent) had on average at least two children.‡

Findings to Date on DTAP's Impact

More than half of DTAP participants (52.6 percent) graduate from the program.§ Preliminary findings of post-treatment performance of DTAP participants indicates that given treatment, educational and vocational tools, and help improving their social skills, repeat drug offenders (even those involved with selling drugs to support their habits) can make significant progress.

---

* Included those who reported needing treatment, those who reported being troubled by psychological symptoms/problems but claimed they needed no treatment, and three individuals who reported suicidal ideation.

† Self-report data not appearing on the participant's criminal record.

‡ Derived from a recent sample of 815 DTAP participants.

§ Based on 1,191 DTAP participants admitted before November 2000 and who have completed the program or dropped out.

Reduced Recidivism

> *I was always my own best customer.*[18]
>
> --Four-time felony offender for possession and selling of narcotics, DTAP graduate and current case manager at Samaritan Village

A comparison of 280 DTAP participants measured against the matched sample of 130 individuals who had gone through the regular criminal justice process in New York City indicates that (Table 1):

- DTAP participants have rearrest rates that are 26 percent lower (43 percent vs. 58 percent)* two years after leaving the program† than those of the matched comparison group two years after leaving prison.

- DTAP participants have reconviction rates 36 percent lower (30 percent vs. 47 percent)* two years after leaving the program than those of the matched comparison group two years after leaving prison.

- DTAP participants are 67 percent less likely to return to prison (five percent vs. 15 percent)* two years after leaving the program than those of the matched comparison group two years after leaving prison.

- DTAP participants are 41 percent less likely to receive a new jail or prison sentence (22 percent vs. 37 percent)* two years after leaving the program than those of the matched comparison group two years after leaving prison.

- DTAP graduates had rearrest rates that were 33 percent lower (39 percent vs. 58 percent)‡; reconviction rates that were 45 percent lower (26 percent vs. 47 percent),** were 87 percent less likely to return to prison (2 percent vs. 15 percent),** and 51 percent (18 percent vs. 37 percent)** less likely to receive a new jail sentence two years after graduating the program than the matched comparison group two years after leaving prison. On every measure (rearrest, reconviction, new prison sentence and new jail sentence), DTAP graduates had substantially lower recidivism rates than dropouts as well.

Recidivism is a key measure of effectiveness for a felony diversion program, because much of the past criminal activity of program participants is related to their drug use. Lower recidivism upholds public safety,[19] conserves prison beds[20] and generates the bulk of long-term cost-savings.[21]

Table 1

Recidivism Measures: Subjects With Two Years At Risk

	Percent Rearrested		Percent Reconvicted		Percent New Prison Sentence		Percent New Jail Sentence	
	Y1	Y2	Y1	Y2	Y1	Y2	Y1	Y2
DTAP Participants[a]	26	43	16	30	1	5	12	22
DTAP Graduates[b]	18	39	10	26	1	2	7	18
DTAP Dropouts[c]	36	49	24	37	2	8	19	28
Prison Comparisons[d]	46	58	31	47	10	15	24	37

At time of analysis, December, 2001: [a] n=260; [b] n=153; [c] n=107; [d] n=112.

* DTAP participants vs. comparison: significant at $p<.01$.

† For DTAP dropouts, the two year follow-up period began upon completion of their prison sentence.

‡ DTAP graduates vs. comparison: significant at $p<.01$.

** DTAP graduates vs. comparison: significant at $p<.001$.

Reduced Relapse

In order to further measure the effect of DTAP on the lives of post-program drug offenders, CASA is conducting drug tests and interviews with 150 DTAP program participants and the comparison sample.[23] Preliminary results[24] from the first set of completed interviews reveal that six months after program completion, DTAP graduates had lowered their drug use relative to program dropouts or the comparison sample.*

Based on self reports validated by urine tests,† graduates were found to be less likely to use heroin in the past 30 days than dropouts and prison comparisons‡ (12 percent vs. 57 percent and 26 percent, respectively), cocaine (two percent vs. 14 percent and 19 percent, respectively), crack (zero vs. 14 percent and 19 percent, respectively), polydrug use (zero vs. 43 percent and 26 percent, respectively) or to inject drugs (two percent vs. 29 percent and seven percent, respectively) (Table 2).[25] Program graduates used fewer wages for drugs than dropouts and comparisons (eight percent vs. 57 percent and 16 percent respectively).[26]

The DTAP Model Keeps Offenders in Treatment

Retention Rates. A considerable body of research has found that the long-term effectiveness of drug treatment is related to the length of time spent in treatment.[27] DTAP uses the threat of lengthy incarceration to deter program participants from dropping out§ and has been able to achieve relatively high retention rates.[28] DTAP participants remain in treatment a median of 17.8 months, six times the three month median stay for long-term residential treatment reported in the most recent national study of the general drug treatment population, the Drug Abuse Treatment Outcome Studies (DATOS).** [29]

Table 2

Substance Use Characteristics by Sample at 6-Month Follow-Up***

Daily Use[22] (past 30 days) Percent Used:	DTAP Graduates	DTAP Dropouts	Prison Comparisons
Heroin	12	57	26
Cocaine	2	14	19
Crack	0	14	19
Marijuana	2	29	13
Polydrug use	0	43	26
Inject drugs	2	29	7
Alcohol to intoxication	4	14	19

*** This study is ongoing. This table represents 49 DTAP graduates interviewed to date of a total of 91; treatment dropouts 9 of 59; and prison comparisons 31 of 131.

Evidence suggests that retention has risen since DTAP shifted from a deferred prosecution to a deferred sentencing model: since this program modification occurred in 1998, 12 month retention increased from 64 percent to 81 percent, and 24 month retention from 49 percent to 62 percent. These retention rates are greater than those typically seen in TCs[30] or other residential treatment programs.[31]

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* At this stage of the analysis, one can not rule out that factors other than the DTAP program may account for these differences.

† Seventy-eight percent of DTAP graduates in this sample and 79 percent of comparison group agreed to urine testing. For those who agreed to urine testing, the test results matched the self reports.

‡ Six months after the completion of their prison sentences.

§ As repeat felony offenders, DTAP participants face mandatory prison sentences under New York State's second felony offender law. Any participant who fails to complete the DTAP program will immediately be brought back to court and sentenced to prison on the underlying charges. The threat of certain and immediate prison sentences may serve as an incentive for DTAP participants to remain in the program.

** These studies were begun in 1990 by the National Institute on Drug Abuse (NIDA) to evaluate drug abuse treatment outcomes and emerging treatment issues in America. Baseline data used in the current DATOS studies were gathered from 10,010 adult clients entering treatment programs in 11 representative U.S. cities during 1991-1993. Ninety-six treatment programs participated; an extended follow-up is now underway.

Perceived Legal Pressure.* DTAP's initial high retention appears to be associated with the program's ability to generate high levels of perceived legal pressure among participants.[32] Although past research has generally supported the efficacy of coerced treatment, little is known about the different forms of legal pressure used to compel treatment participation and its effects on client outcomes. In order to assess the impact of legal pressure on DTAP participants, CASA's research partners at the University of Maryland, College Park and the Vera Institute of Justice constructed the innovative Perception of Legal Pressure (PLP) questionnaire designed to measure a client's knowledge of the conditions and consequences of treatment failure, and his or her views about treatment compliance monitoring, enforcement and aversion to the consequences of failure.[33]

The analyses show that Perceived Legal Pressure (as measured by the PLP score) was a strong predictor of retention (Figure A). More than 93 percent of those scoring high on the PLP were still in treatment at six months, compared to almost 52 percent of those with a low PLP score. Controlling for other factors, the odds of remaining in treatment for at least 90 days was nearly five times greater (4.93) for someone scoring high on the PLP than someone who scored in the medium range, and persons with high PLP scores averaged 18.4 more days in treatment during the first six months than those who scored in the medium range.

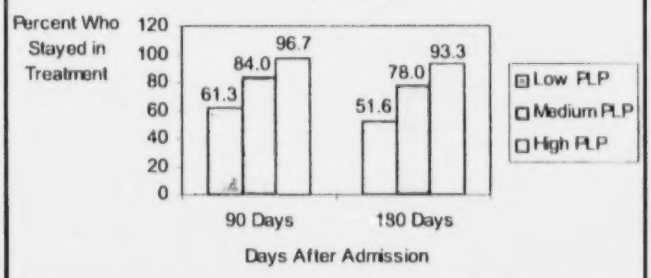
The results of the PLP questionnaire suggest that mandatory treatment programs should routinely inform participants about the benefits of continuing treatment, the consequences of failure and that participation is being monitored by legal agents. DTAP differs from other mandated programs in its use of formal agreements with its treatment programs and the guidelines that require treatment staff to remind participants that treatment failure means a return to prison.

Other Factors Influencing Retention. In addition to PLP, participant readiness for treatment as measured by a psychological scale and motivation were shown to predict retention. Prior treatment failure, crack use, prison time and psychological problems all lowered retention rates.†

The Flip Side--Treatment Noncompliance. Disruptions in treatment hinder the client's progress toward retention and positive outcomes.[34] Following treatment failure or release from prison, most felony drug offenders will quickly return to drug use and criminal activity.[35]

Figure A

Treatment Retention by Perceived Legal Pressure (PLP) Scores



Despite the critical importance of treatment compliance for successful program completion, little is known about the issue. In order to learn more about treatment noncompliance, CASA conducted analyses of the seven problem behaviors that offered grounds for expulsion

* This project's legal coercion study compares the 150 DTAP participants who entered the program in 1995-1996 with a group of individuals who, as a condition of probation, parole or involvement with TASC, receive treatment at the same drug treatment facilities as DTAP clients. This study measures the effects of clients' perceived legal pressure (PLP) to participate in DTAP on treatment retention, completion and criminal recidivism.

† This analysis was based on the 150 DTAP participants who entered the program in 1995-1996.

from the DTAP program--psychological withdrawal, disobedience, physical fights with other residents, sexual acting-out, theft, drug use relapse and unauthorized departure.* [36]

Table 3
Distribution of Incidents and Participants by Noncompliance Type

Noncompliance Type	Incidents[a]	Participants[b]	Dropouts[c]
Disobedience/attitudes toward staff	115 (36%)	75 (50%)	4 (5%)
Psychological withdrawal	78 (24%)	43 (29%)	1 (2%)
Unauthorized departure	52 (16%)	49 (33%)	45 (92%)
Drug use relapse	33 (10%)	24 (16%)	8 (33%)
Sexual acting-out	21 (7%)	17 (11%)	2 (12%)
Conflicts or fights with peers	16 (5%)	13 (9%)	2 (15%)
Theft	4 (1%)	4 (3%)	1 (25%)
Never had any problem reported	--	26 (17%)	--
Total	319 (99%)	N/A	N/A

[a] The percentages do not add up to 100% due to rounding.
[b] The sum of the percentages exceeds 100% because many noncompliant clients engaged in more than one type of noncompliance.
[c] Four cases of treatment termination involved multiple terminal problem incidents.

Although 83 percent of DTAP participants had at least one incident of noncompliance recorded in their monthly reports during their DTAP tenure, drug use relapse, physical fights, sexual acting-out and theft were comparatively infrequent (23 percent of all incidents combined). The two most common types of noncompliance were disobedience and negative attitudes toward staff (36 percent of all incidents), followed by psychological withdrawal (24 percent) (Table 3), but they rarely resulted in treatment termination. Noncompliant participants were generally younger (average age of high rate noncompliant†--31.5; low rate noncompliant‡--33; compliant--37), but low-rate noncompliant participants had the highest number of juvenile arrests (an average of 0.63 as opposed to 0.48 for high-rate noncompliant and 0.46 for compliant participants).

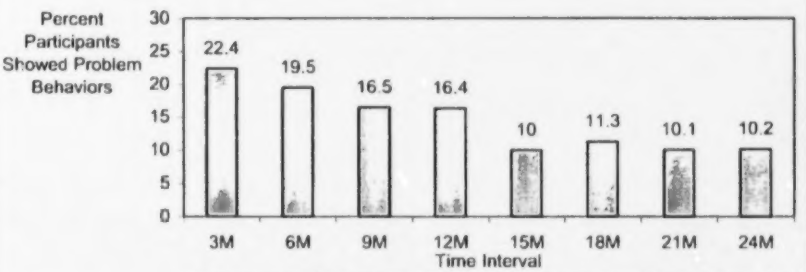
Results showed that a group of 48 participants (32 percent) accounted for 64 percent of the total of 319 problem incidents reported for the sample during the follow-up period. These high-rate noncompliant participants had a range of three to nine conduct problems, while the rest of the sample only averaged one. It appears that the significance of noncompliance may be more apparent in the differences between low-rate and high-rate problem participants, rather than simply between those who are compliant versus those who are not.

The noncompliance prevalence rate was highest in the first three months of treatment (22.4 percent of the clients had at least one incident). During the first year of the two year follow-up period, the monthly prevalence rate averaged 17.5 percent compared to only 10.3 percent during the second year (Figure B). As DTAP participants near the end of their treatment, the consequences of failing may seem more immediate and compelling.

* The analyses were based on data collected and coded from the monthly progress reports prepared by the treatment providers for the 150 DTAP participants in the study.
† Had four or more noncompliant incidents.
‡ Had one to three noncompliant incidents.

Figure B

Noncompliance Incidents Over a 24-Month Treatment Period



Transitioning Out of Treatment: Education and Employment

DTAP graduates are three and one-half times likelier to be employed than they were before arrest and entrance into the program. CASA's analysis of employable (those not in school full-time, not disabled and not homemakers) graduates showed that although only 26 percent were working either part-time or full-time the year before arrest and DTAP, 92 percent were working at the time of data collection.* [37] Three-year recidivism data were available for 117 of the employable graduates. Among those DTAP graduates who were working at the time of treatment completion, 13 percent were rearrested during the three-year follow-up.[38] In contrast, 33 percent of those who were not working part-time or full-time were rearrested during the same period (Figure C).[39]

Drug-involved offenders typically develop chronic dependence on the drug economy for subsistence.[40] Reconnecting ex-offenders to the world of legitimate employment is crucial to maintaining recovery and reducing future criminal behavior.[41] Chronic joblessness or underemployment limits their ability to leave the drug-crime lifestyle, to support a family and to successfully transition from the treatment program to the community. Repeat felony offenders are ineligible for federal education grants, membership in some trade unions and government jobs, and in many cases public assistance programs; most lack the social, educational or vocational skills they need to find employment. Among DTAP participants, only 17 percent were employed full-time in the legal labor market at the time of their arrest. Most of their self-reported income in the three months prior to arrest, averaging $4,016 per month,† was from drug dealing. The average income from legitimate employment was only $322 per month.

Figure C

Recidivism Rates Between Employed and Unemployed Graduates

DTAP offers access to GED preparation and vocational training. Participants also benefit from the services of a full-time job developer and employment counselor who helps them develop vocational skills and find employment upon completion of the treatment program. The job developer is supported in his efforts by the Business Advisory Council, a group of local businesses that have agreed to provide employment opportunities to DTAP graduates. Only four percent of the 93 graduates for whom data are available accepted job offers from participating members of the Business Advisory

* The phrase "at the time of data collection" indicates that the follow-up period was not uniform (of equal length) for this entire sample.

† Income data were collected from 1995-1996 and have not been adjusted for cost of living increases.

Council either as new graduates or returning graduates. Two reasons may explain this finding. First, the job developer had already built an extensive network of useful personal contacts in the local business community before he joined DTAP. As a result, he relied mostly on his own leads to place DTAP graduates. Second, despite the enthusiasm of the members of the Business Advisory Council to employ DTAP graduates, a mismatch often existed between their need for highly skilled labor and the relatively low skill levels of DTAP graduates.

The high level of income linked to illegal drug dealing compared to the earnings of DTAP program graduates suggests at first glance that the economic incentives to continue dealing may outweigh the other social benefits of remaining clean. However, CASA's preliminary analysis of the self-reported data indicates that, although DTAP participants' earning are still below the poverty level, the difference in available income may not be as substantial if one accounts for the amount an untreated user/dealer spends on drugs. For example, the reported income from drug sales during the 90 days before arrest for DTAP graduates is approximately $3,434 per month.* Adding average monthly income from legitimate employment ($361) yields a monthly income of $3,795. Subtracting the average monthly spending by DTAP graduates on drug use during the 30 days before arrest ($2,812) leaves $983 in monthly discretionary income. The total monthly income for DTAP graduates six months after program completion was $1,108--assuming that there was no income derived from illegal sources and no spending on drugs.

Young User, Long-Term Abuser: Who Succeeds and Who Fails in DTAP?

Consistent with past research, CASA found that a younger age of first heroin use and first regular marijuana use decreased an offender's odds of being a DTAP graduate; conversely, the younger individuals initiated use, the more likely they were to drop out. In fact, of personal behaviors linked to substance use, criminal activity and sexual behavior, age of first regular use of marijuana was the strongest predictor of program completion. For graduates the average age of first marijuana use was 16.5 compared to 14.9 for the program dropouts.†

Higher drug-dealing income and more prior felony drug offenses also increased the odds of dropping out. Having more close friends and being more concerned about social conformity increased the likelihood of DTAP program completion. On the other hand, the odds of being a DTAP dropout were increased by a history of psychological treatment and greater involvement in risk-taking activity (i.e., higher proportion of unprotected sexual incidents). More months employed increased the odds of program completion, but ever experiencing a gunshot or stab wound or problems with a significant other 30 days before DTAP admission increased the likelihood of dropping out.

Reduced Costs

DTAP's results are achieved at about half the average cost of incarceration. The average cost for a participant in DTAP, (i.e., the costs of residential drug treatment, vocational training and support services) was $32,975‡ compared to an average cost of $64,338§ if that same

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* Income data were collected from 1996-2000 and have not been adjusted for cost of living increases.

† The difference is statistically significant at the .05 level.

‡ Amount includes the costs of treatment administration, individual and group counseling, job counseling, vocational training, and HIV education and prevention services. It excludes other administrative costs of program management. The average stay in the DTAP program is 15 and one-half months. Average daily program cost per participant was $62 in 1996.

§ Amount includes costs of incarceration and does not include the other considerable criminal justice costs, including arraignment and other court appearances, prosecution and defense attorneys salaries and labor, pretrial detention, etc. Average term of incarceration for a DTAP dropout was 25 months; average daily incarceration cost was $75 in 1996.

individual had been placed in prison.* CASA is currently engaged in a cost-benefit analysis of DTAP.

CASA's recent ground-breaking report, *Shoveling Up: The Impact of Substance Abuse on State Budgets,* revealed that states spent $29.8 billion in 1998 for adult corrections, including incarceration, probation and parole.[42] Eighty-one percent of this amount ($24.1 billion) was spent on substance-involved offenders.[43] Of the $24.1 billion, $21.4 billion went to run and build prisons to house substance-involved offenders, $1.1 billion for expenses related to parole and $695 million for expenses related to probation for substance-involved offenders.[44] An additional $899 million was spent on state aid to localities for substance-involved offenders.[45] And yet, of every dollar states spent on substance abuse, only 3.7 cents went to fund prevention, treatment and research programs.[46] Despite the existence of the DTAP program and other effective treatment interventions for offenders, in 1998 for every $100 of its state budget that New York spent on substance abuse, only $5.81 went towards prevention, treatment and research.[47]

Interrupting the Cycle of Substance Abuse

Better Models for the Next Generation

The majority of DTAP participants have children. CASA's landmark report, *Behind Bars: Substance Abuse and America's Prison Population* showed that children of substance-involved inmates are at high risk of addiction and incarceration.[48] Inmates whose parents use drugs and alcohol are much more likely to abuse drugs and alcohol themselves.[49] In state or federal prisons, regular drug users are twice as likely to have parents who abused drugs and alcohol than inmates who are not regular users.[50] Regular drug users in prison and jail are more likely than the general population to have a family member in jail.[51]

In 1999, an estimated 1.5 million minor children had parents held in U.S. prisons, an increase of over 500,000 since 1991.[52] Sixty-seven percent of the parents in federal prison were drug offenders.[53] Parents in state prison were more likely to be serving sentences for drug offenses (24 percent) than nonparents (17 percent).[54] One study found that when one or more parent or sibling had contact with the police, a boy's risk of delinquency or recidivism increased by 50 percent.[55] Parental incarceration can exacerbate or trigger other risk factors for serious and/or violent juvenile offending, and can result in low levels of parental involvement, poverty and neglect.[56]

Treatment of adult offenders' addictions may be an effective tool for reducing the number of future juvenile offenders. By enabling adults to reestablish legitimate connections to the community, the ramifications of the addiction--in terms of both current and future costs to society--are significantly reduced.

Next Steps

Findings to date from CASA's evaluation of DTAP are encouraging. Criminal justice programs can divert into long-term residential treatment high-risk, serious felony offenders (including drug sellers), who would otherwise have been incarcerated, while holding them accountable for their crimes. Evidence accumulated thus far has demonstrated that this approach yields high treatment retention rates, improved employment, diminished recidivism and reduced costs.

Evaluations of community-based treatment alternatives for substance-abusing offenders have appeared more frequently in recent years. Drug courts[57] and TASC programs[58] have been the most common subjects of research, but other models also have been studied.[59] As the number of programs and evaluations grows, policymakers and researchers will need to know

* These estimates are based on 1996 dollars (at the time of analysis, the most recent year for which sufficient data were available) adjusted for inflation based on the consumer price index published by the U.S. Bureau of Labor Statistics.

not just whether these programs work, but how they work, and how they can be replicated and improved.

CASA received a supplemental grant from NIDA in October 2000 to extend the follow-up tracking period for collecting official rearrest data to up to three years. The scope of the original research plan has expanded to include additional analyses of the effects of changes to the DTAP program design that were instituted in 1998; predictors of program compliance; and the DTAP treatment process. These analyses will address the perceptions of legal pressure and compare the relative level of coercion in drug courts and other criminal justice treatment models; recidivism, relapse, and other post-program outcomes; the relative effectiveness of deferred prosecution and deferred sentencing models; and the relative economic costs and benefits of DTAP. Currently underway, this research may provide new and important information about the long-term impact of DTAP.

The preliminary results of the research thus far, however, suggest that DTAP is a concrete approach to dealing with high-risk substance involved nonviolent offenders, including those who sell drugs. It requires both accountability for crimes committed and treatment for substance abuse. Another key aspect of the DTAP approach is the effort to address the multiple needs of offenders, such as employment training, mental and physical health and family services,[60] through partnerships with multiple organizations (criminal justice agencies, community service organizations, drug treatment providers and business groups). The DTAP model of providing long-term residential treatment to serious drug-addicted felony offenders should be tested in other jurisdictions to determine the replicability of the findings to date.

In their efforts to reduce crime and drug use, state and local corrections agencies, courts and prosecutors offices across the Nation should consider this type of program as a possible cost-effective alternative to incarceration.

Notes

[1] The National Center on Addiction and Substance Abuse (CASA) at Columbia University. (1998).
[2] The National Center on Addiction and Substance Abuse (CASA) at Columbia University. (2001).
[3] U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. (2002).
[4] New York State Division of Criminal Justice Services. (2001).
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[14] Belenko, S., Lang, M. A., & O'Connor, L. (in press).
[15] Belenko, S., Lang, M. A., & O'Connor, L. (in press).
[16] Lang, M., & Belenko, S. (1999).
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[18] Marks, A. (2001, February).
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[20] Fluellen, R., & Trone, J. (2000).
[21] Gerstein, D. R., Johnson, R. A., Harwood, H., Fountain, D., Suter, N., & Malloy, K. (1994).
[22] *Notes to Table 2: Graduates significantly less likely than dropouts and comparisons (p<.01) to use heroin at 6-month follow-up; also graduates (p<.001) and comparisons (p<.001) show significant decline in heroin use between time points. (Similar findings only with decline between time points with all DTAP and comparisons.)*
Graduates significantly less likely than dropouts and comparisons (p<.02) to use cocaine at 6-month follow-up; also Graduates (p<.001) show significant decline in cocaine use between time points. (Similar findings with all DTAP vs. comparisons.)
Graduates significantly more likely to use crack than dropouts and comparisons (p<.07) at intake; also graduates significantly less likely than dropouts and comparisons (p<.01) to use crack at 6-month follow-up; also graduates (p<.001) and comparisons (p<.03) show significant decline in crack use between time points. (Similar findings with all DTAP vs. comparisons, with exception to no significant difference at intake.)
Graduates significantly less likely than dropouts and comparisons (p<.02) to use marijuana at 6-month follow-up; also graduates (p<.001) and comparisons (p<.001) show significant decline in marijuana use between time points. (Similar findings only with decline between time points with all DTAP and comparisons.)
Graduates significantly less likely than dropouts and comparisons (p<.001) to use poly substances at 6-month follow-up; also graduates (p<.001) and comparisons (p<.01) show significant decline in polysubstance use between time points. (Similar findings with all DTAP vs. comparisons.)
Graduates significantly less likely than dropouts and comparisons (p<.08) to use alcohol to intoxication at 6-month follow-up; also graduates (p<.01) show significant decline between time points. (Similar findings with all DTAP vs. comparisons.)
Graduates significantly less likely than dropouts and comparisons (p<.02) to inject drugs at 6-month follow-up; also graduates (p<.01) and comparisons (p<.01) show significant decline between time points. (Similar findings only with decline between time points with all DTAP and comparisons.)
Dropouts spent significantly more money on drugs than graduates (p<.001) and comparisons (p<.001) at 6-month follow-up; also graduates (p<.001) and comparisons (p<.001) show significant decline in dollars spent on drugs between time points. (Similar findings only with decline between time points with all DTAP and comparisons.)
[23] *As of June 1999, 91 of the 150 DTAP participants (61%) graduated from DTAP, and 59 (39%) dropped out prematurely. Of the 91 treatment graduates, 6-month data are available for 49 individuals (54%), while follow-up data for treatment dropouts have been collected for only 7 individuals (12%). For prison comparisons, 6-month data are available for 31 respondents (24%). Collection of follow-up data has been constrained because a consecutive 6-month period in the community is required before conducting the 6-month follow-up interview. The*

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availability of sufficient time in the community for follow-up has been limited by rearrest and conviction, incarceration, relocation, deportation and death. Sample participants have prior felony convictions and incarceration is more likely following a reconviction.

[24] *Interpretation of these preliminary results must be made with caution due to the small sample sizes (particularly with the treatment dropout group) rendering the statistical analyses unstable. Also, our study is limited to New York City felony drug offenders, who are primarily African-American and Hispanic-American, and the sample consists of very few female respondents, limiting the extent to which generalizations are possible. Moreover, potential underreporting of socially undesirable behaviors must be acknowledged, although subjects in this study are given urine tests at the follow-up interview and the results conform closely to self-reported drug use. Finally, the first group of subjects located and interviewed at follow-up may be biased toward the more successful subjects, because they are easier to locate and may include those who had shorter periods on incarceration. However, other analyses of official criminal justice records for the full study sample have consistently found that DTAP participants have lower rearrest rates than comparison subjects following treatment participation or release from prison.* Belenko, S. Cowan, D., & Lang, M. (1998); Lang, M., & Belenko, S. (1999); Dynia P., & Sung, H. (2000).

[25] *Six months after the completion of their prison sentence, DTAP dropouts spent significantly more money on drugs than program graduates and comparisons ($1,931 vs. $126 and $191, respectively) and were significantly more likely than graduates and comparisons to have made, sold or distributed drugs in the past 90 days (25.7 times vs. <0.1 and 7.2 times).*

[26] *Most of these findings remained significant when comparing the combined DTAP group (treatment graduates and treatment dropouts) to prison comparisons, revealing higher levels of improvement for DTAP respondents.*

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[33] *For more information about the PLP instrument*, see Young, D., & Belenko, S. (2002).

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[51] The National Center on Addiction and Substance Abuse (CASA) at Columbia University. (1998).

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Appendix A
Data Summary Report: Methodology

We used a longitudinal quasi-experimental design comparing retention and post-treatment outcomes for a sample of approximately 280 offenders diverted to DTAP, and a comparison sample of 130 matched offenders sentenced to prison who had similar charges, criminal records, demographics and desire for drug treatment. Among the DTAP subjects, 150 were in a prospective sample of new admissions that were matched to the comparison subjects.* An additional 130 DTAP participants who dropped out or graduated from DTAP prior to the research were included as a retrospective sample. These subjects did not receive the full research intake interview and thus are excluded from some of the analyses. They are, however, included in the recidivism analyses presented in this report. Interview data and official records were used to assess the impact of DTAP on drug use, criminal activity, employment and earnings and HIV risk behaviors. Data from intake, 6- and 12-month follow-up interviews for the samples of DTAP participants and matched comparison offenders were analyzed to determine relative changes in these measures, and the degree to which DTAP participation yields positive post-treatment outcomes. The prospective sample of 150 DTAP and 130 comparison subjects was also the source of data for the cost analysis.

* Between May 23, 1995 and December 9, 1996, 199 individuals entered the DTAP program. Of these, 150 (75 percent) agreed to participate in this research as prospective subjects. Twenty-six (13 percent) declined to participate in this research (of whom 20--77 percent--completed the DTAP treatment program and six--23 percent--either dropped out or were expelled from treatment). Twenty-three (12 percent) dropped out within the first five days of the program before they could be asked to participate in the research.

The ongoing investigation of the effects of legal coercion also employs a longitudinal design with the same sample of DTAP participants noted above serving as the experimental group, and a separate comparison group composed of 200 individuals mandated by other criminal justice sources to attend the same treatment programs used by DTAP. The comparison sample includes persons under the supervision of probation, parole, and the local TASC agency. The samples represent two groups of drug treatment clients that we hypothesized were under different levels of legal coercion. All subjects are given extensive intake interviews (which include a measure of various components of perceived legal pressure [PLP] developed under the present grant), and are being tracked for two years post-admission. Analyses are assessing group differences on treatment retention, completion, and criminal recidivism, as well as the roles of perceived legal pressure and other factors in predicting these outcomes.

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